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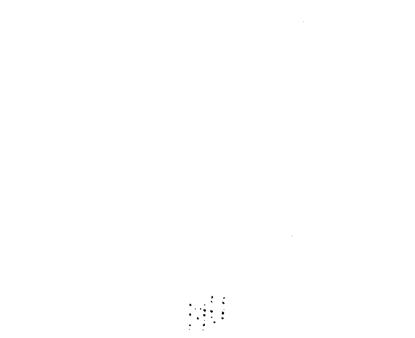
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A SERIES OF TWENTY-FOUR
READING TEXTS WHICH CONSTITUTE AN INTERPRETATION OF
THE UNDERLYING PRINCIPLES
OF ECONOMICS AND BUSINESS
FOR MEN AND WOMEN IN
PRACTICAL LIFE

GEORGE E. ROBERTS

AMERICAN CHAMBER OF ECONOMICS INCORPORATED

NEW YORK



An Introduction to a Study of Economics

GEORGE E. ROBERTS

AMERICAN CHAMBER OF ECONOMICS INCORPORATED NEW YORK

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BEFORE BEGINNING THE STUDY

A WORD OF EXPLANATION BY THE EDITOR

in response to an evident need for a discussion of economic questions that, in form of presentation and style of treatment, is especially adapted to the business man and practical student of affairs.

The editor personally has had many requests to recommend some simple, non-technical presentation of fundamental economic principles. Professors in universities and colleges of commerce tell of similar requests which they are constantly receiving. Although there are many exhaustive and valuable treatises upon economics, there seems to be a call for a treatment that is especially adapted to popular reading and to the problems and conditions of the present time, written in language and with illustrations familiar to the general reader.

The Aim of the Work

It was with some hesitation, because of the scope of the undertaking, but also with

pleasure, because of the purpose in view, that the editor undertook to direct and supervise such a work.

It is generally agreed that there never was a time when wrong economic thinking was more prevalent than it is to-day, or when right thinking was more needed. If this undertaking can be successful in aiding to correct some few of the fallacies that are prevalent, and in helping to assist men and women to think and act intelligently, the results will have been well worth while.

It should be made clear at the outset, therefore, that "Economics for Executives" seeks to set up and expound no new theories. Its function is rather to make clear and interpret to a practical audience the truths and principles upon which the recognized leaders in the field of thought have been generally agreed.

Advantages for the Executive

The following pages point out some of the conditions that make such knowledge necessary to successful business leadership. In these days of specialization the range of activity of most persons in business is often so closely limited to a specific field that some means of keeping in touch with outside conditions and with the problems and principles that are common to all fields becomes im-

perative. Particularly is this true with men and women who have or hope to have a part in the determination of policies. "Economics for Executives" affords contact with underlying principles and conditions, and presents them for consideration in an organized and comprehensive manner.

The Method Followed

The method used in presenting the material—in the form of a course of study—is believed by the editor to be most effective. An adequate understanding of economics cannot be acquired merely by reading a book. The plan here followed consists of dividing the subject into simple parts or units, then presenting the substance of each unit in the form of a brief study lesson.

The study-units are simple, non-technical discussions of underlying principles, accompanied by a complete index for reference purposes.

It will be noted that each study-unit is brief. This is the result of a deliberate policy to eliminate all but the essentials—to make each treatise a concise discussion, and to pre-

sent an amount of material which experience has shown can be readily assimilated.

The Topics Treated

The topics included in the series are those that are closely related to business people and that are required for an understanding of the present industrial and social situa-In the first study-unit (which may be considered an introduction to the entire series), the editor has pointed out why a knowledge of economics is essential at this time, particularly upon the part of those who are now occupying or who expect to occupy positions of responsibility. A survey of the present condition of society and of some of the outstanding problems is also included. Throughout the entire series, the relation of each topic to the others is clearly shown, so that when the course is completed the student should have a comprehensive knowledge of the entire economic organization, with a broad understanding of the inter-relationships of the forces, activities, and principles that have been discussed.

The Viewpoint

Although "Economics for Executives" was prepared primarily for business people, it holds no brief for any prevailing form of

business or social organization as such. The endeavor has been to maintain throughout a common social viewpoint, based on the conception that only those things can endure permanently that aid and benefit the great body of the people.

In the preparation of the lessons the editor has had the assistance of recognized authorities who have assembled and aided in organizing the material. The editor has incorporated matter suggested by his own observation and experience, and bears the responsibility of shaping the trend of the discussions, determining the importance and emphasis given to the various phases of the subjects treated, and of whatever opinions are expressed.

GEORGE E. ROBERTS

New York



AN INTRODUCTION TO A STUDY OF ECONOMICS

I

The Science of Business

CONOMICS may be defined as the fundamental science of business and of ✓ social life. The term is used to describe the body of facts, principles, theories, and data of every kind that have to do with the production, distribution, and consumption of wealth. It covers the field of man's activities in making a living, and particularly the relations of people in organized society, where in one way or another they cooperate in their labors and share in the results. study of economics is for the purpose of understanding these complex relations, discovering the general rules or principles upon which people naturally act in them, and thus evolving a system of order and cooperation in business and public affairs.

The principles of economics are based upon and tested by experience. They are an interpretation of the experience of society.

Of course, many economic questions have been in controversy for a long time and remain unsettled, because the conditions to which they relate are continually changing; but there is an important body of principles upon which writers who are entitled to be regarded as authorities have been in substantial accord, and concerning which all who wish to be well prepared for the responsibilities of business life and of citizenship should be informed.

II

The Value of Economic Knowledge

The individual has a twofold interest in the subject. First, there is the personal interest, which relates to the use that he may be able to make of a knowledge of economic principles in his own private undertakings, and, second, the interest which he has as a citizen in the adoption of well-considered public policies for the advancement of the community welfare.

It cannot be doubted that a knowledge of the fundamental principles which underlie all economic relations is an important qualification for those who aspire to positions of leadership in modern commercial and indus-

trial life. The difference between the ordinary routine worker and the manager who bears the responsibilities of directing a business is largely in breadth of view, knowledge of principles, ability to interpret the signs of the times and conform the policies of the individual undertaking to the tendencies and conditions that prevail generally. This ability to judge from a knowledge of economic principles grows increasingly important as the affairs of every locality become more involved in the affairs of the outside world, which is the tendency of the time.

Modern business is constantly becoming more complex. American business is reaching out into all quarters of the globe. The world has become one trading field, and business conditions in each country are affected by conditions in every other coountry. If industry is disturbed or thrown out of balance anywhere, the reaction is wide-spread. convincing demonstration of this was had in the business depression which extended to all countries in 1920, and for which only those who had a broad comprehension of economic relations were prepared. And yet all the phenomena of over-trading, with wages, rising prices, credit expansion, and subsequent collapse have characterized every war period of history.

Economics in Public Affairs

And not only is a knowledge of economics demanded in the management of private business, but it has become highly important that such knowledge shall direct the management of public affairs. Government is having more and more to do with business. problem of taxation has become of the utmost significance. The power to tax is seen to include practically the power to confiscate and destroy. The development of an equitable system of taxation, designed to raise necessary revenues with the minimum of interference with the wealth-producing powers of the community, is a matter of vital consequence, and requires a thorough knowledge of economic relationships.

Proposals for legislation affecting the standard of value, the monetary and banking systems, trade relations, industrial conditions, and other matters of vital concern are constantly pending. It is highly important that business men shall be able to comprehend their scope and probable effects, not only for guidance in their own affairs, but in order that they may have informed opinions and be able to exert wholesome influence in the adoption of public policies. The functions of government are being constantly enlarged, in some instances advisedly, in

many instances unwisely and upon uninformed impulse. Legislation intended to accomplish a specific purpose often is found to have far-reaching and unforeseen effects. Proposals to establish new officials or commissions, with supervisory powers over branches of trade and industry, are being made continually. The useful exercise of such authority requires an adequate knowledge of economic laws, which unfortunately is by no means general.

Natural Tendencies Misunderstood

Experience teaches that there is a natural and wholesome order of development in industrial society when all the inherent forces have free play. If these tendencies are understood, they may be assisted, as the development of plants has been assisted by intelligent cultivation, and as a physician may assist the processes of nature in restoring physical health to an invalid. But if society, whenever it is in trouble or thought to need a tonic or treatment of any kind, is to be bled or plastered or dosed, after the manner of treatment administered in times past to sick people, the effects upon the social organism will resemble those resulting from similar remedies applied to individual pa-There can be no helpful treatment without a correct diagnosis, and this requires

a knowledge of the laws of health and development. Much of the legislation intended to promote social welfare is misguided by ignorance and impatience, and actually interferes with the natural processes of change and evolution.

Economics and Current Problems

There is an especial need for the study of economics at this time. The Great War left society in a state of upheaval and disorder. The war itself was a violation of economic principles on such a colossal scale that it unsettled the whole social order. The highly organized, world-inclusive system of industry and trade, which had been gradually developed for supplying the wants of the population, was disrupted, and necessity compelled the adoption of many temporary expedients. As a result, the public has been in a state of mind receptive to innovations, and the industrial confusion attending the shift from wartime to peace-time conditions, has occasioned unrest and agitation.

Normal methods of progress seem very slow compared with the way things were done in war-time. The power of governmental authority over economic conditions has been magnified, the resources and wealth of society have been exaggerated by the enormous governmental expenditures in

terms of inflated currencies. The ability of governments in a great emergency to command wealth by taxing and borrowing has been taken as representing their ability to command and create wealth at will.

The rapid rise of wages and prices, resulting from the enormous volume of credit circulating as purchasing power, has been responsible for false ideas about prosperity and social progress. Many of the predictions of revolutionary social changes to follow the war were like the unrealized fortunes counted upon by the speculative traders of the same period. They did not take account of the slow and laborious processes by which real progress is achieved. We must build our plans for social advancement upon more solid foundations.

A Want of Understanding

While the conditions incidental to the war are partly responsible for the existing state of social unrest, it must be recognized that they have not been the sole cause. Even before the war there was much friction and ill-feeling in the industrial world. Class antagonism was developing to a degree that seriously impaired the effectiveness of the entire industrial organization.

There is good reason to believe that this deplorable tendency is mainly due to a want

of knowledge of economic principles. It proceeds from an assumption of conflicting interests, which our studies will show is unwarranted. This lack of economic knowledge is by no means confined to unschooled people, or to those who do manual labor; it is a deficiency of all classes. The most common economic errors, such as that which has prompted the antagonism to labor-saving machinery, on the theory that there might not be work enough for all, are to be found lurking in the commercial policies and rivalries of nations, sponsored by statesmen and business men.

Current discussion of price movements and other economic conditions during and since the war often has been of a kind calculated to inflame passion and obscure the questions of chief importance. Business men who were themselves on the defensive against uninformed criticism have been no less unreasonable in criticism of others, or, while protesting that governmental interference with their own business was harmful, have been insistent that the government should interfere else-This state of confusion has been where. largely due to common ignorance of the natural laws which govern throughout the business world, and unwillingness to rely upon them. The only hope of establishing order

and harmony is through a wider knowledge of the principles which serve the common interests.

III

Increasing Importance of Economic Knowledge

The study of economics becomes of increasing importance as population increases and society becomes more complex and interdependent. Under primitive conditions people were largely self-supporting and industrially independent. Such organization as they had was chiefly for attack or defense in war or for the maintenance of social order. They supplied the personal wants by their own labor or that of their households. There was land enough for all, the raw materials for their simple manufactures were available to all, and the goods were made in the homes, where consumed.

As civilization advanced the industrial practices changed. Indeed, it were better to reverse the statement and say that as industrial practices and methods changed, civilization advanced. As men devoted themselves to specialized tasks they acquired skill, and as all devoted themselves to specialized tasks and exchanged products with one another,

there was more of everything for everybody. And so began the division of labor. This state of mutual dependence has gone on developing and increasing until we have the highly organized and complicated state of society which exists to-day.

Results of Division of Labor

These gains in productive capacity have had various results. Labor employed in certain ways has been released to other purposes. With fewer persons required to provide the common necessaries for the population, it has become possible for individuals of inquiring minds to devote themselves to research and experiment for improvement of the arts and the advancement of knowledge. Their achievements have become the common possessions of society. They not only have increased the supply of products for consumption, but have developed new tastes and faculties, awakened new interests, created new occupations, and broadened the field of effort and opportunity.

Any one who examines a price list of one hundred or even fifty years ago, will be surprised by the comparatively small number of articles quoted. The variety of goods and services ministering to the comfort and pleasure of the people has been constantly increasing. The standard of living has been raised;

the hours of labor in industry have been reduced, giving leisure for rest and recreation; the variety of experience and the breadth and content of life have been enlarged.

Early System Understood

In the early stages of this development, when the exchanges were direct or comparatively simple, the gains from the division of labor were evident to everybody, and there was little opportunity for misunderstanding. Even within the memories of many persons now living, the ordinary small community was much more self-contained and independent of the outside world than it is to-day. It is not very long since every community in a wheatgrowing region had its local grist mill and made its bread from home-made flour. Wool was spun and woven in neighborhood mills or in the homes, and made into clothing by household labor. Hides were tanned in local tanneries and made into shoes by the village cobbler; wagons were made by the village wheelwright; horseshoes were made by the village blacksmith when he shod the horses: furniture was made by the local cabinet-maker: and so on around the circle of the crafts.

The simplicity of this state of industry is obvious. Producer and consumer met face to face, and if there were disagreements

they involved few people and small amounts. The wage-earners were comparatively few in number, usually worked with the employer, and knew almost as much about his business as he did. The plant investment was small and the step from the position of a wage-earner to that of an independent proprietor was not so great as to seem impossible to the average man, or to excite class antagonism. But probably the most important feature to consider here is that the whole situation was visible and understood. All parties concerned had a close-up view of the simple transactions that were being carried on.

Complexities Create Misunderstandings

The introduction of steam-power and the development of machinery wrought a great change. The first step in producing goods for the market now is to construct an expensive plant of buildings, power equipment, and machinery. The expenditures upon this plant are a part of the cost of making the product which is to be put on the market. The workmen who lay the walls, and the artisans who build and install the equipment, must be paid as they render their services, and the proprietor must obtain reimbursement and compensation by a charge upon the output. This expenditure of labor upon a plant in getting ready to produce goods is called by econo-

mists a "roundabout" method of production, by way of contrasting it with a direct expenditure of labor in making goods by hand. Of course, practically all production is by "roundabout" methods to some extent, for even hand tools have had an expenditure of labor upon them, but the use of power has brought about a revolution in this respect.

"Roundabout" Production

With the progress of invention and the development of mechanical equipment, the "roundabout" method of production grows in relative importance. An increasing share of the total expenditure of labor is devoted to providing the equipment by means of which the final processes of manufacture are accom-This fixed productive property is plished. capital, and along with it an operating company will have an amount of "working" or "liquid" capital, in the form of raw materials, supplies, stock, accounts receivable, money, and bank deposits. This increasing investment of capital favors concentration in industry. Production must be carried on upon a certain scale of magnitude to secure economy in operations, and the amount of capital required may put the business on quite a different basis as to ownership from that under the old methods.

So it has come about that, outside of agri-

culture, the principal industries are usually conducted by corporations, in which many individuals as stockholders unite their capital and employ large numbers of wage-earners. Such corporations often assume large proportions, as, for example, the Pennsylvania Railroad Company, with 135,000 stockholders and 250,000 employees, and the United States Steel Corporation, with 150,000 stockholders and 260,000 employees.

Modern Processes Involved

The system is economically effective, but there is a loss of the personal relationship which formerly existed between employer and employee, and also between producer and consumer. The great industrial corporation is impersonal and produces for "the market," and the processes of production and exchange are so involved and roundabout that not many people follow them or fully comprehend them.

The improvement in transportation facilities has increased this complexity by multiplying the long-distance exchanges. Raw materials are gathered from great distances to be combined in manufactures, and the goods are distributed over wide areas. The number of people and amount of capital employed in transportation have become relatively very large, and the charges on this account are an

important element in the cost of goods to consumers.

The tendency to specialization in industry and trade creates a great number of middlemen, who seem to be non-producers and are often referred to as parasites upon industry. Whether they are such or not, as we shall see in a later lesson, depends upon whether they are rendering service.

It is necessary, in viewing this complex organization, to be on guard against merely superficial observations. The fact that a pair of shoes in the course of manufacture in a modern factory passes through the hands of thirty or forty individuals must not be assumed to make the shoes cost more to consumers than if made and finished by one shoemaker. On the contrary, the complex process is adopted for the purpose of re-Every division of labor or ducing costs. of service between producer and consumer presumably has an economical basis to stand on, or it would not be maintained under competitive conditions, but every new subdivision creating an independent factor in the exchanges adds to the complexity and obscurity of the process.

An Explanation Called For

If an amount equal to all the payments made in this complicated system were paid

in the old manner, mainly within the neighborhood, with employers, wage-earners, traders and producers and consumers face to face, even though it covered a smaller amount of goods, there would be comparatively little friction about it, because all of the transactions would be within view and would be fully understood. The real abuses would be detected and the services actually rendered would also be perceived and appreciated. But the services of all the people employed in the modern system of business are not fully understood, and it is inevitable that they should be questioned, and that dissatisfaction and confusion should develop about them. Moreover, it is right that there should be inquiry about the services of all these people, and a call for full exposition of all the processes of production and exchange.

IV

The Unity of Society

The uppermost thought as we survey the wonderfully complex social organization as a whole, and approach it for a more intimate examination of its parts, must be that of the essential unity of society. Where there is such a great degree of interdependence there

must be a fundamental harmony of interests, which will afford a key for the settlement of all disagreements. The individual cannot live outside of society, and society is organized to promote the welfare of its individual members. It follows that the individual should make every contribution to the support and efficiency of society that he can make without sacrificing those very qualities and possibilities in himself which it should be the object of society to develop.

The Part of the Individual

We must keep in mind that the progress of society as a whole is by the accomplishments of its individual members. Its thinking is done by individual effort and its work is done best, not by compulsion enforced from above, but under incentive of individual zest and purpose. It is of the highest importance that in our eagerness to promote social progress we shall not emphasize or exalt the authority of the state to such an extent as to try to make it a substitute for individual initiative or ambition. If we look to the state for creative power, we shall entrust progress and development to the few who make its policies, instead of encouraging and stimulating the spontaneous generation of ideas in the body of the people.

Industrial Development Necessary

Industrial development likewise is a necessary condition of social progress. We should not allow the idea of what is called material prosperity, in the sense of money-making and luxury-enjoyment, to dominate our aims, but, on the other hand, it is a mistake to estimate lightly the services of the business organization and the desire to acquire wealth. We must not forget that the advancement of the standard of living is dependent upon industrial progress.

The physical requirements of our bodies have first claim on our energies. It is not until after the necessaries of life have been provided that attention can be given to the The higher arts could not refinements. flourish until the crafts that have more directly to do with making a living had some development. There must be time for study and reflection to exercise the powers of the mind, awaken the imagination, and open up the world of ideas. Freedom for such development is secured by improving the living conditions of the people and releasing them from the pressure of daily want.

The Object of Business

The object of the modern industrial organization is the same as that of the simpler

organization which it succeeded, namely: to supply the wants of the population. That is the end and purpose of all business activities. The present organization has developed gradually, a step at a time, each taken with a view to accomplishing for society greater results with relatively less effort.

As the system has developed it has become more closely knit, interdependence has increased, and the consciousness of a common purpose and of social responsibility has been gradually growing. This is as it should be, and we should seek to develop this consciousness to the end that all shall have a clearer idea of the great social organization and social purpose which are to be forwarded. Business is more than a mere contest between private interests for private gain. All legitimate business renders service to the community, and the study of economics is for the purpose of understanding, developing, and more effectively organizing this service.

Modern Industry Coöperative

Modern industry as it has developed is fundamentally cooperative. It is a system of exchanging labor or the products of labor. It is founded on reciprocity of service. The workers in the shoe factories are making

¹ By this term it is intended to include both employers and employees.

shoes for all the workers in other employments: the workers in cotton mills are making cloth for all the other workers; the workers in the fields are growing food for all the other workers: the workers in the mines are producing coal to keep all the other industries going: the workers on the railroads are carrying these necessaries back and forth in the exchanges; and the workers on docks, in warehouses, in banks, insurance and professional offices, and in the departments of the various branches of government, are all performing necessary tasks. In effect, one man gives so many hours of work in a cotton mill or a shoe factory for so many hours in a grain field or a counting room. It is a wonderfully effective system when it is well balanced, with everybody at work and giving his best efforts to the common service.

Every invention or improvement in machinery or organization which will make labor more effective in any employment tends to cheapen that service to the people in all the other employments, and the aggregate effect of all such improvements is to carry society forward and increase the general wellbeing. This is the general history of industrial development, and whatever questions may arise over the equity of distribution, it is evident that the supply of things available

for distribution is dependent upon the volume of production.

Necessity of Social Understanding

It is a very common criticism of modern mass production that the individual worker who repeats from day to day one small task, which is only a part of a complete whole, loses the workman's natural pride in his work and incentive to his best efforts. No doubt there is force in this criticism, but even more serious is the fact that producers in the various industries (and this designation includes employers as well as employees) frequently do not have an adequate appreciation of their own relations to the whole industrial and social system.

The writer recently received a letter from an officer of a large express company, an observing and thoughtful man, in which he said:

"We have 130,000 men interested in our business. I talk with the wagon drivers, platform men and small town agents. Only here and there does one of them understand that they are a part of our industrial system; that our company handling a million shipments each day, 98% of which are from one commercial house to another, is a factor in making commercial life active, hence adding to the prosperity of everyone. None of them seems to grasp the great significance of the fact that we feed the cities through the perish-

ables which we carry, and that where these perishables are allowed to rot or become damaged, it increases the cost of their own food.

"Either our system of developing the Company spirit is wrong or the day has not arrived when the average unthinking individual feels the responsibility toward his fellow-workers in an outside line of business."

This is not offered as criticism of the workers as a class, but as pointing the need for broad educational effort to develop a higher state of social consciousness and a clearer appreciation of the coöperative character of modern life. People are generally sympathetic toward plans to ameliorate social conditions. Never, probably, was there so much interest in the subject of social betterment as there is to-day, but the idea of social service is not commonly associated with the every-day work, where the best opportunity for rendering it occurs.

Harmony and Loyalty Essential

Since everybody has much to gain from the system of industry, it follows that everybody owes loyalty to it, should aid it to the best of his ability, and do everything in his power to improve it. He expects others to contribute efficiently for his benefit, and he should contribute to the best of his ability in fairness to them. The whole system of

advanced industry, based upon the division of labor, under which men devote their lives to acquiring skill in one trade or profession, and depend upon exchanging their services for the services of others, is dependent upon the spirit of fair play and mutual helpfulness. If we wish to develop the system and pass it along with improvements to those who come after us, we should work intelligently and in good faith with our fellows to that end, and not pursue policies which are destructive of coöperative social relations and which really prevent progress and work against the best interests of the major portion of society.

The Situation Summarized

It must be recognized that while failure to secure willing and hearty cooperation throughout the industrial organization is due in part to mere thoughtlessness and indifference, it is due in large part to a belief that the existing system of industry is unjust in the distribution of benefits, and that the workers are not interested in increasing production. This is the most serious feature of the situation, for men cannot be expected to cooperate heartily in industry while they hold this belief. The belief must be changed, and this state of distrust, if warranted, supplanted by a spirit of confidence and good-will before a state of harmony in industry can be secured.

Those who wish to be right and to know the ground upon which they stand will want to go carefully over the field of experience and consider the teachings of economic sci-If the present system of organized industry is indeed necessary to social progress, and the opposition to it arises from failure to follow its ramifications and understand the economic laws which have governed its development and which control the distribution of the product, it must be concluded that organization has proceeded beyond the comprehension of a large portion of the population, and that it can go no further until individual intelligence and knowledge has caught up with it.

And, on the other hand, if there is a basis of truth for the prevalent belief that the average man is unfairly treated in the distribution of results, and that social welfare is neglected and sacrificed to the mere accumulation of surplus wealth in the hands of a few, then it must be recognized that the supreme and essential purpose of the industrial organization is not being served. One or the other of these suppositions is true, and, in either case, is it not evident that the only way to reach an understanding upon the subject and to find a remedy for this disorder is by careful study of the facts of the situation and of economic principles?

V

Law in Economic Affairs

In what has gone before, frequent reference has been made to "economic law" or "natural law" as a controlling factor in affairs, and it may be well to explain briefly what is meant by these terms.

The scientific method in the investigation of any subject is to reduce it to its simplest elements, examine how they came to be in existing relations, and disclose the laws or rules which define and govern those relations. natural "law" is a generalization deduced from a multitude of facts which point unmistakably to one conclusion. "Science," it has been said by one of its eminent expositors, "consists not in the accumulation of heterogeneous facts, any more than the random piling up of stones is architecture, but in the detection of the principles which co-relate facts and of the order which binds the parts together. Science is, in brief, the pursuit of law." And so the history of knowledge in every field shows unremitting efforts to classify and organize the facts, to provide a sane basis for conclusions. Our opinions and policies in daily life are all formed upon generalizations which have become rules of conduct.

Law in the Natural World

A wonderful body of knowledge has been developed about the physical universe. An all-inclusive system of order and law has been established there, upon which calculations and predictions are grounded with the utmost confidence. The laws of the conservation of energy and correlation of forces describe a complete inter-relationship among the forces of nature. Heat, light, and electricity have been found to be mutually convertible forms of energy. It is established that there is action, reaction, compensation, and balance everywhere, with all the worlds that swing in space held in their places by counterbalancing influences.

The organic world exhibits the same law of integration and unity. "The dependence of each upon all," says a noted scientific writer, "is a cardinal fact of the organic world," and we shall find that it is no less true of the economic world. "The course of life upon earth so far as science can see," said Professor John Tyndall, one of the greatest physicists of the nineteenth century, "is one of amelioration, of steady advance from lower to higher."

Ralph Waldo Emerson by a similar course of reasoning reached his pronouncement that the "universe is moral." James Anthony

Froude, the historian, in his essay upon history, declares: "One lesson, and only one, history may be said to repeat with distinctness: that the world is somehow built upon moral foundations; that in the long run it is well with the good; in the long run it is ill with the bad."

The Body of Economic Law

It may seem at first thought that conditions in the business and economic world bear little similarity to those in the physical universe, that there is no such uniformity or regularity of phenomena, and hence no possibility of such definite conclusions. And vet it will be found that while there is great instability and complexity upon the surface in economic affairs, with events succeeding each other so rapidly and diverse influences so commingled that it is often difficult to relate cause and effect, the fundamental principles that govern are not very numerous and are entirely comprehensible. Even if many people do not take the trouble to follow them in all their bearings, it will be very helpful to have it widely understood that in economic relations, as well as in the physical universe, law governs, and that no man or combination of men can escape the economic law any more than they escape the law of gravitation.

We have only to look back over the his-

tory of economic and social progress, review the changes that have taken place, note the advance that has been accomplished in the methods of industry, transportation, and trade, and observe how the benefits of these improvements have been diffused among the people, to be predisposed to believe that some principle of orderly development is in control.

The Industrial Organization

When we go about this country, and to foreign countries, viewing the multifarious activities of the people, seeing the vast industries, themselves highly organized and all integrated into a world system of industry and exchange, and reflect that this organization has been developed by the enterprise and efforts of individuals, each primarily seeking profit for himself, without any general plan, we must be impressed that in seeking to serve their own interests these individuals have been working, in large part unconsciously, in conformity to a universal law that makes for the unification of interests and the common It is evident that the conformity is not complete; the harmony of interests as yet is far from being generally recognized; social conditions are far from ideal; but we are looking now for the underlying principles upon which the common interests of society

are based. We know that society cannot progress without cooperation, and every step in cooperation requires mutual understanding and assurance that the other man will do his part. Here is the demonstration that "the world is built on moral foundations."

The economic law, by which is meant the body of harmonious principles governing economic relations, is the law of common interests and common needs. It tends to establish that adjustment and balance of interests which promote the highest social coöperation, and it is the supreme fact of the social order that there is a natural tendency to such a state of equilibrium. The various occupations are dependent upon each other and tend to maintain that state of balance in the distribution of population and production which yields the largest social benefits. The economic law finds a meeting ground for all interests.

Interpretation of Economic Law

It is true that there is a great degree of flexibility in the operations of economic law. The changeable conditions of the business world, the degree of freedom enjoyed by each member of the social body to direct his own course in daily affairs, make it impossible to determine by rule the immediate sequence of events. There are usually too many uncertain elements in an economic situation to

allow of positive predictions, for not only are events uncertain, but what men will think of them, and the actions they will be prompted to take by them, are also uncertain. An hypothesis may be stated, that under certain specified conditions certain results will tend to follow, as, for example, the familiar proposition that other things remaining the same, an increase or decrease in the volume of currency will raise or lower the general level of prices. Obviously, here is an important qualification, and the application of economic principles is constantly subject to such qualifications, but they do not destroy the value of economic studies. A leading economist has commented upon these limitations of the science as well as its services, as follows:

"The student of economics must not expect rules of thumb by which he can decide offhand the economic problems of the particular city or country district in which he is for the moment interested. No general treatise on economics can authoritatively decide the practical problems of particular times and places; although the economist, before all other students, is forced to deal with practical problems. What such a treatise can do is to point out mistakes of logic common in the current discussions of economic questions, call attention to obscure factors—sometimes fac-

¹ Richard T. Ely, "The Outlines of Economics." (Published by The Macmillan Company. Reprinted by permission.)

tors of great importance—which the practical man is likely to overlook, give solutions of typical problems which are likely to arise, and thus afford a training which will assist the student in solving

practical problems for himself.

"The peculiar and distinctive office of the economic scientist, however, is to emphasize the less tangible truths, the remoter consequences, the deeper and consequently less obvious forces of economic society. The impulses of the moment, the immediate demands of the hour, the present 'fact' that stares us in the face (and sometimes blinds us), are not likely to lack vigorous champions; and to preserve the balance there is need of a craft of thinkers far enough removed from the battle to preserve the wider outlook, mindful of the lessons of the past, jealous for the rights of the future, insistent upon the less obvious truths."

The above statement defines to our satisfaction the purpose of the present course of study. It is to set forth the principles and truths upon which thinkers are generally agreed, and direct attention to the fundamental factors in history and social affairs which are often overlooked but which have a vital bearing on the problems of the present situation.

The Solidarity of Interests

The economic law teaches a solidarity of interests throughout society, which as yet is but little appreciated. It shows that society has a stake in the individual, that the com-

munity has something to gain by increasing the productive capacity of its humblest members. What would it be worth to the business interests of every town and city if the productive capacity of every worker within its territory could be doubled? The new wealth would flow through all the channels of trade. making more traffic for the railroads, more deposits for the banks, more trade for the merchants, and so on all around the circle. As there is waste and peril to all who live in the neighborhood of foul, pestilential swamps which might be drained and made rich, tillable land, so from the economic viewpoint there is loss and menace from the presence of disease, vice, idleness, and undeveloped capacity among the individual members of the community.

In the same manner that the earnings and production of the individual worker contribute to the volume of business and the common prosperity, does the capital wealth of individuals contribute to the common welfare. The wealth of a community, so far as it is employed in industry, is a common fund, despite the fact that it is privately owned. The productive activities are carried on by private enterprise, but the equipment representing these private investments is none the less the equipment of society. Its fundamen-

tal use and value is in serving the needs of the community.

Whether these needs could be served fully as well or better in any other way than by reliance upon private enterprise is one of the inquiries to which attention will be directed in these studies, but for the moment we are only indicating broadly how the interests of individual citizens are involved and interwoven with the general public inter-Private wealth can be used productively, that is, in producing more wealth, only by supplying the wants of the public. And the public itself directs the form which private investments shall take by the exercise of its choice in making purchases, for no one will knowingly put his capital into the production of something that the public does not want.

The Fundamental Fallacy

It would appear from the foregoing that the problems arising from supposed conflicts between the interests of groups, classes, and nations are very largely due to failure rightly to understand the reciprocal nature of economic relationships. There is room in the world for all peoples and all classes to live peacefully and helpfully together if they will get into right relations with each other. The fundamental fallacy is over-emphasis upon

